FIG. 1

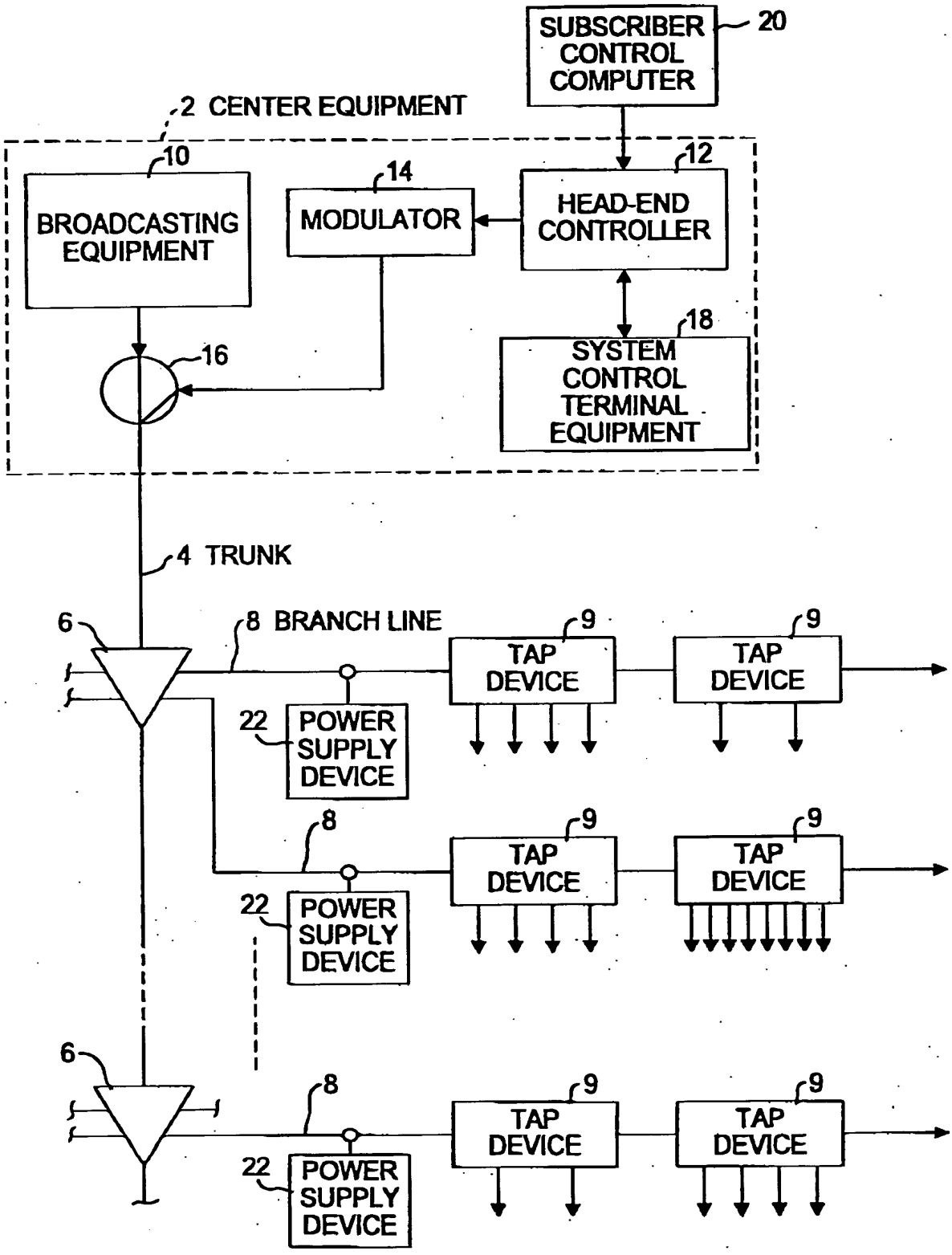
SUBSCRIBER CONTROL COMPUTER
20
2 CENTER EQUIPMENT
10
BROADCASTING EQUIPMENT
14
MODULATOR
12
HEAD-END CONTROLLER
16
18
SYSTEM CONTROL TERMINAL EQUIPMENT
4 TRUNK
6
8 BRANCH LINE
9
TAP DEVICE
22
POWER SUPPLY DEVICE

FIG. 2

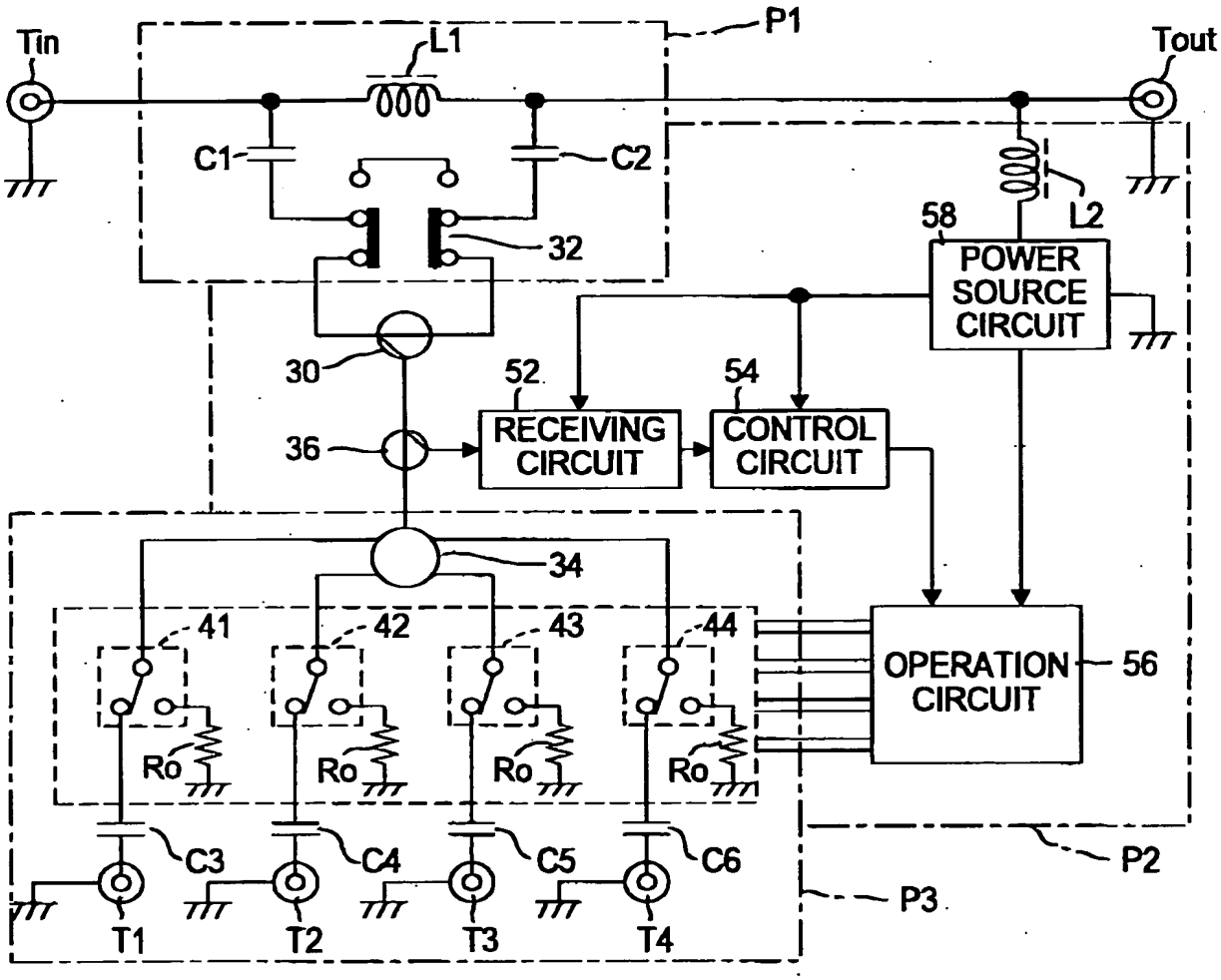
Tin
L1
P1
Tout
C1
C2
32
58
L2
POWER SOURCE CIRCUIT
30
52
54
36
RECEIVING CIRCUIT
CONTROL CIRCUIT
34
41
42
43
44
OPERATION CIRCUIT
56
Ro
Ro
Ro
Ro
C3
C4
C5
C6
P2
P3
T1
T2
T3
T4

FIG. 3

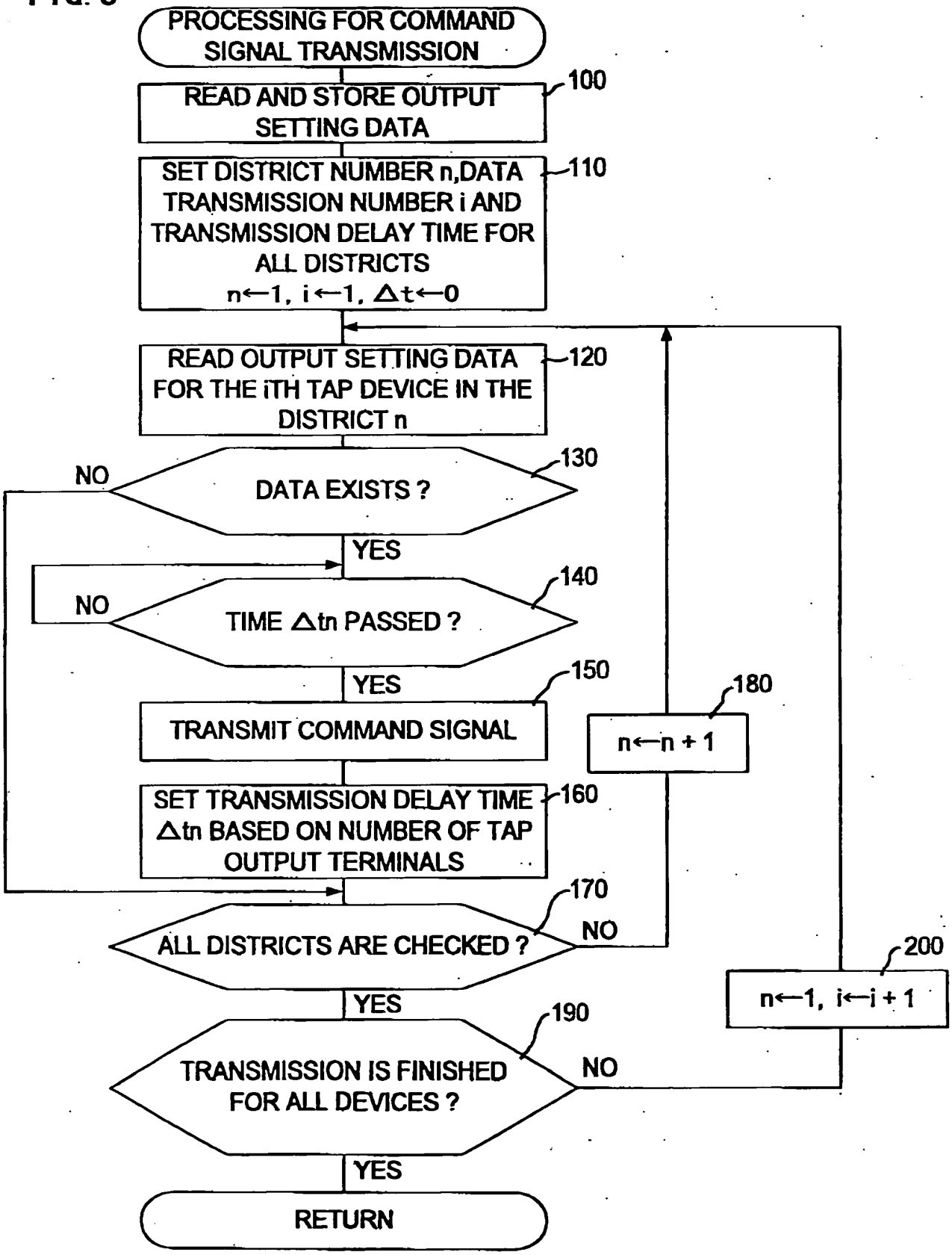
PROCESSING FOR COMMAND SIGNAL TRANSMISSION
READ AND STORE OUTPUT SETTING DATA
100
SET DISTRICT NUMBER n,DATA TRANSMISSION NUMBER i AND TRANSMISSION DELAY TIME FOR ALL DISTRICTS
n←1, i←1, Δt←0
110
READ OUTPUT SETTING DATA FOR THE iTH TAP DEVICE IN THE DISTRICT n
120
DATA EXISTS ?
130
NO
YES
TIME Δtn PASSED ?
140
NO
YES
TRANSMIT COMMAND SIGNAL
150
SET TRANSMISSION DELAY TIME Δtn BASED ON NUMBER OF TAP OUTPUT TERMINALS
160
n←n + 1
180
ALL DISTRICTS ARE CHECKED ?
170
NO
YES
n←1, i←i + 1
200
TRANSMISSION IS FINISHED FOR ALL DEVICES ?
190
NO
YES
RETURN

FIG. 4

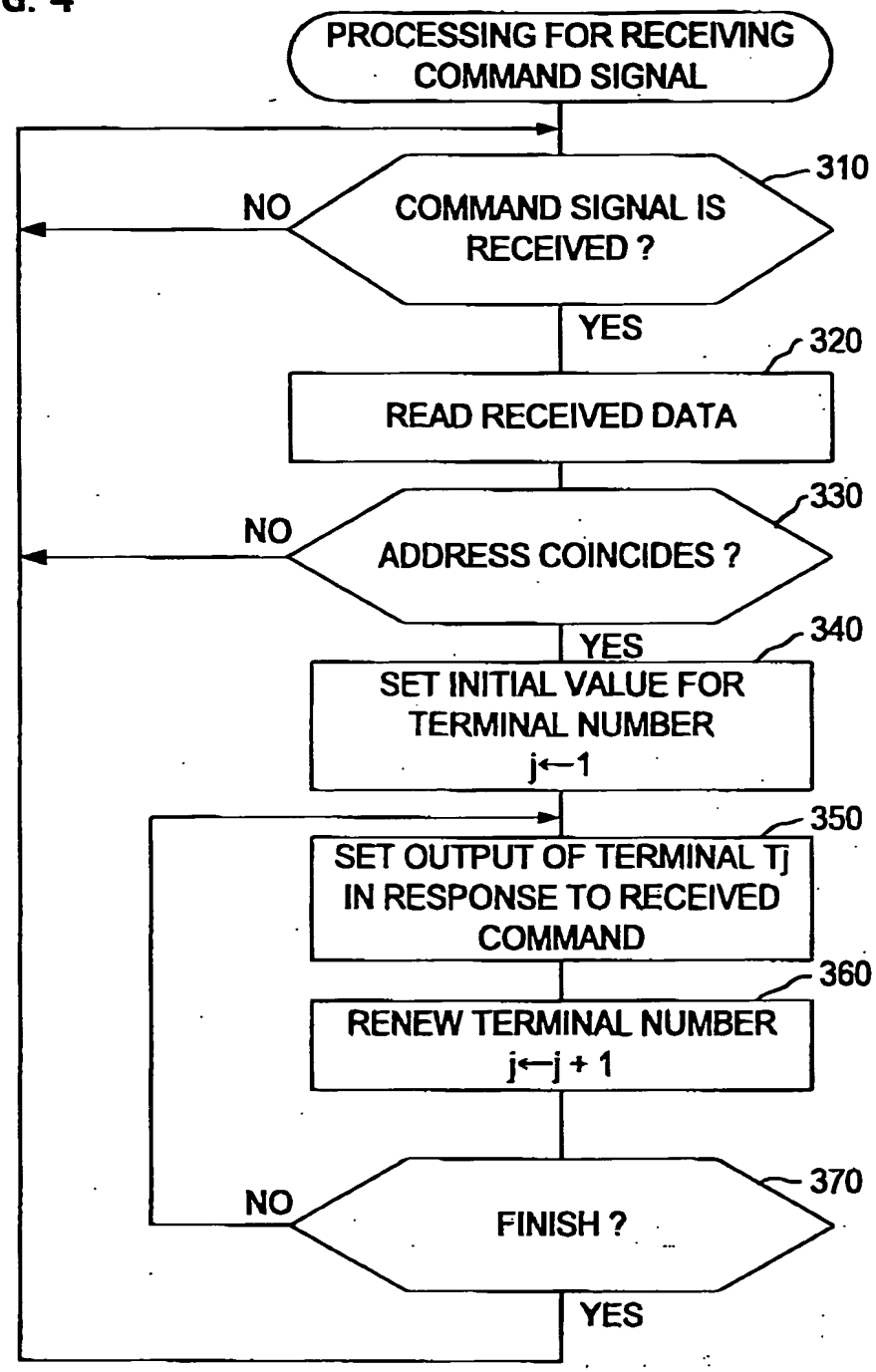
PROCESSING FOR RECEIVING COMMAND SIGNAL
310
NO
COMMAND SIGNAL IS RECEIVED ?
YES
320
READ RECEIVED DATA
330
NO
ADDRESS COINCIDES ?
YES
340
SET INITIAL VALUE FOR TERMINAL NUMBER
j←1
350
SET OUTPUT OF TERMINAL Tj IN RESPONSE TO RECEIVED COMMAND
360
RENEW TERMINAL NUMBER
j←j + 1
370
NO
FINISH ?
YES

FIG. 5

OUTPUT SETTING DATA

ADDRESS	TERMINAL NUMBER	DISTRICT NUMBER	TAP OUTPUT SETTING VALUE
0001	4	2	T1=ON,T2=OFF,T3=ON,T4=ON
0023	2	1	T1=ON,T2=ON
0065	8	3	T1=OFF,T2=ON,T3=ON,·····
⋮	⋮	⋮	⋮

FIG. 6

TRANSMISSION DATA

ADDRESS	COMMAND
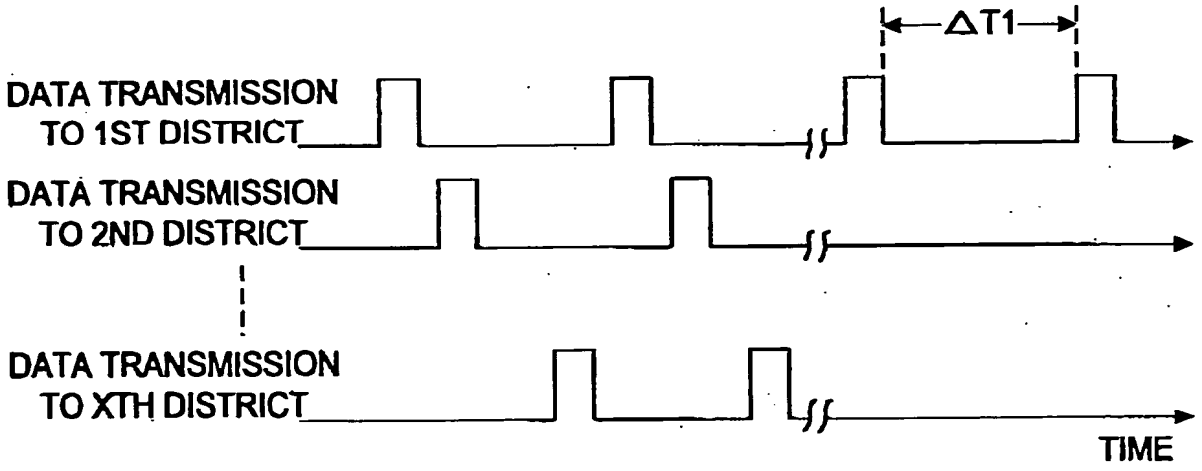
FIG. 7